

IN THE CLAIMS:

Please amend the claims as follows:

1. (previously presented) A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, the method comprising transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a ROMable size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message.

2. (original) The method of claim 1, wherein said location of said object specified by said download control message includes a channel of a transport stream on which said object is transmitted and a packet identifier identifying data packets of said object within said transport stream.

3. (original) The method of claim 1, wherein said location of said object specified by said download control message includes a URL at which said object is stored.

4. (original) The method of claim 1, wherein said object is a programming code object for execution by said set-top terminal, said method further comprising downloading said code object in accordance with said download control message.

5. (original) The method of claim 4, wherein said download control message further specifies an entitlement control data structure associated with said programming code

object, said method further comprising downloading said entitlement control data structure in accordance with said download control message.

6. (original) The method of claim 5, further comprising authenticating and authorizing said downloaded code object using said downloaded entitlement control data structure.

7. (original) The method of claim 1, further comprising: downloading said object in accordance with said download control message; and terminating said downloading if a timer exceeds a set limit prior to receipt of a next successive data packet of said object.

8. (original) The method of claim 1, further comprising: specifying, with said download control message, an operating environment of said set-top terminal in which said terminal is to respond to said download control message; and downloading said object in accordance with said download control message only if said set-top terminal is in said operating environment specified by said download control message.

9. (original) The method of claim 1, further comprising embedding said download control message in an entitlement management message that is transmitted from a headend facility to said set-top terminal.

10. (original) The method of claim 1, further comprising:
specifying with said download control message an address or characteristic of said set-top terminal; and
downloading said object in accordance with said download control message only if said set-top terminal bears an address or characteristic matching the address or characteristic specified in said download control message.

11. (previously presented) A system for controlling the downloading of code and data objects by a set-top terminal in a cable television system, the system comprising:
a set-top terminal connected to a cable television system; and
means for transmitting a download control message to said set-top terminal;
wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message; and
wherein said code or data object is added to firmware of said set-top terminal.

12. (original) The system of claim 11, wherein said location of said object specified by said download control message includes a channel of a transport stream on which said object is transmitted and a packet identifier identifying data packets of said object within said transport stream.

13. (original) The system of claim 11, wherein said location of said object specified by said download control message includes a URL at which said object is stored.

14. (original) The system of claim 11, wherein said object is a programming code object for execution by said set-top terminal, and said set-top terminal further comprises means for downloading said code object in accordance with said download control message.

15. (original) The system of claim 14, wherein said download control message further specifies an entitlement control data structure associated with said programming code object, and said set-top terminal further comprises means for downloading said entitlement control data structure in accordance with said download control message.

16. (original) The system of claim 15, wherein said set-top terminal further comprises means for authenticating and authorizing said downloaded code object using said downloaded entitlement control data structure.

17. (currently amended) A system for controlling the downloading of code and data objects by a set-top terminal in a cable television system, the system comprising:
a set-top terminal connected to a cable television system; and
means for transmitting a download control message to said set-top terminal;
wherein said download control message specifies an object to be downloaded, a size
of said object and a location of said object such that said set-top terminal is enabled to
commence downloading said object upon receipt of said download control message;
wherein said code or data object is added to firmware of said set-top terminal; and
~~The system of claim 11,~~ wherein said set-top terminal further comprises:
means for downloading said object in accordance with said download control message; and

means for terminating said downloading if a timer exceeds a set limit prior to receipt of a next successive data packet of said object.

18. (currently amended) A system for controlling the downloading of code and data objects by a set-top terminal in a cable television system, the system comprising:

a set-top terminal connected to a cable television system; and

means for transmitting a download control message to said set-top terminal;

wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;

wherein said code or data object is added to firmware of said set-top terminal; and

The system of claim 11, wherein:

wherein said download control message further specifies an operating environment of said set-top terminal in which said terminal is to respond to said download control message; and

wherein said set-top terminal will download said object in accordance with said download control message only if said set-top terminal is in said operating environment specified by said download control message.

19. (currently amended) A system for controlling the downloading of code and data objects by a set-top terminal in a cable television system, the system comprising:

a set-top terminal connected to a cable television system; and

means for transmitting a download control message to said set-top terminal;

wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;

wherein said code or data object is added to firmware of said set-top terminal; and

~~The system of claim 11~~, wherein said download control message is embedded in an entitlement management message that is transmitted from a headend facility to said set-top terminal.

20. (original) The system of claim 11, wherein:

said download control message specifies an address or characteristic of said set-top terminal; and

said set-top terminal further comprises means for comparing said address or characteristic from said download control message to an address or characteristic of said set-top terminal, wherein said set-top terminal downloads said object in accordance with said download control message only if said address or characteristic of said set-top terminal matching the address or characteristic specified in said download control message.

21. (previously presented) A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, wherein said set-top terminal executes firmware, the method comprising:

transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading

said object upon receipt of said download control message; and

adding said code or data object to the firmware of said set-top terminal.

22. (previously presented) The method of claim 21, wherein said code or data object is not part of an enhancement of television programming being received by said set-top terminal.

23. (previously presented) The method of claim 21, wherein said location of said object specified by said download control message includes a channel of a transport stream on which said object is transmitted and a packet identifier identifying data packets of said object within said transport stream.

24. (previously presented) The method of claim 21, wherein said location of said object specified by said download control message includes a URL at which said object is stored.

25. (previously presented) The method of claim 21, wherein said object is a programming code object for execution by said set-top terminal, said method further comprising downloading said code object in accordance with said download control message.

26. (previously presented) The method of claim 25, wherein said download control message further specifies an entitlement control data structure associated with said programming code object, said method further comprising downloading said entitlement control data structure in accordance with said download control message.

27. (previously presented) The method of claim 26, further comprising authenticating and authorizing said downloaded code object using said downloaded entitlement control data structure.

28. (currently amended) A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, wherein said set-top terminal executes firmware, the method comprising:

transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;

adding said code or data object to the firmware of said set-top terminal;

The method of claim 21, further comprising:

downloading said object in accordance with said download control message; and terminating said downloading if a timer exceeds a set limit prior to receipt of a next successive data packet of said object.

29. (currently amended) A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, wherein said set-top terminal executes firmware, the method comprising:

transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a size of said object and a

location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;

adding said code or data object to the firmware of said set-top terminal;

~~The method of claim 21, further comprising:~~

specifying, with said download control message, an operating environment of said set-top terminal in which said terminal is to respond to said download control message; and
downloading said object in accordance with said download control message only if said set-top terminal is in said operating environment specified by said download control message.

30. (currently amended) A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, wherein said set-top terminal executes firmware, the method comprising:

transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;

adding said code or data object to the firmware of said set-top terminal; and

~~The method of claim 21, further comprising~~ embedding said download control message in an entitlement management message that is transmitted from a headend facility to said set-top terminal.

31. (previously presented) The method of claim 21, further comprising:
specifying with said download control message an address or characteristic of said set-top terminal; and
downloading said object in accordance with said download control message only if said set-top terminal bears an address or characteristic matching the address or characteristic specified in said download control message.

32-41. (cancelled)

42. (currently amended) A method of controlling the downloading of code and data objects by a set-top terminal in a cable television system, the method comprising:
transmitting a download control message to said set-top terminal, wherein said download control message specifies an object to be downloaded, a ROMable size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;
specifying, with said download control message, an operating environment of said set-top terminal in which said terminal is to respond to said download control message; and
downloading said object in accordance with said download control message only if said set-top terminal is in said operating environment specified by said download control message;

The method of claim 8, wherein said operating environment is determined by whether said set-top terminal is executing and controlled by a platform object or a system object.

43. (currently amended) A system for controlling the downloading of code and data objects by a set-top terminal in a cable television system, the system comprising:

a set-top terminal connected to a cable television system; and

means for transmitting a download control message to said set-top terminal;

wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message;

wherein said code or data object is added to firmware of said set-top terminal;

wherein said download control message further specifies an operating environment of said set-top terminal in which said terminal is to respond to said download control message;

wherein said set-top terminal will download said object in accordance with said download control message only if said set-top terminal is in said operating environment specified by said download control message; and

The system of claim 18, wherein said operating environment is determined by whether said set-top terminal is executing and controlled by a platform object or a system object.

44. (previously presented) The method of claim 1, further comprising storing said object upon download in volatile memory or non-volatile memory in accordance with data in said download control message.

45. (currently amended) A system for controlling the downloading of code and data objects by a set-top terminal in a cable television system, the system comprising:

a set-top terminal connected to a cable television system; and

means for transmitting a download control message to said set-top terminal;

wherein said download control message specifies an object to be downloaded, a size of said object and a location of said object such that said set-top terminal is enabled to commence downloading said object upon receipt of said download control message; and wherein said code or data object is added to firmware of said set-top terminal;

~~The system of claim 11,~~ wherein said download control message specifies whether a downloaded object should be stored in volatile or non-volatile memory.

46. (previously presented) The system of claim 45, wherein said download control message specifies whether said downloaded object can be stored in Flash memory.

47. (previously presented) The system of claim 46, wherein said download control message specifies whether said downloaded object must be stored at a particular address within Flash memory.

48. (previously presented) The method of claim 1, wherein said ROMable size of said object is a size of said object as encapsulated and not including a size of a static variable required for operation of said object.

49. (previously presented) The system of claim 11, wherein said download control message specifies whether the set-top terminal is to purge older versions said data object from memory.

50. (previously presented) The system of claim 17, wherein download control message specifies said set limit for said timer.

51. (previously presented) The system of claim 11, wherein download control message specifies multiple objects to be downloaded by said set-top terminal.